



## PATENT ABSTRACTS OF JAPAN

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TECHNOL**

(72) Inventor:  
**KIN TEIYUPU**  
**CHO KENNAN**  
**KIN TOEI**  
**KIN EICHURU**  
**RI JUNEI**  
**KIN ZAIKEI**

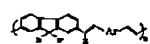
(54) **FLUORENE POLYMER FOR EL ELEMENT AND  
EL ELEMENT USING THE SAME**

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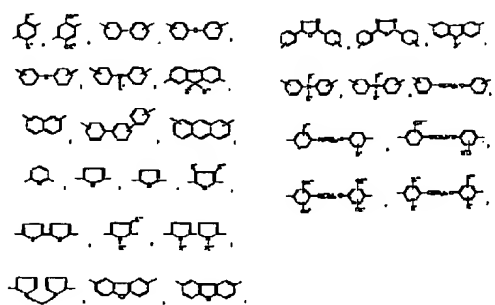
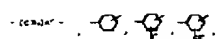
(57) Abstract:

**PROBLEM TO BE SOLVED:** To obtain a fluorescent material of a polymer-based EL element, which is produced by a simple process, has a well-defined structure of a final substance and is highly soluble in organic solvents by using a specified alternating fluorene copolymer.

**SOLUTION:** This material is an alternating fluorene copolymer represented by formula I (wherein R and R' are each H, a 22C or lower alkyl, a cycloalkyl, an alkoxy, an alkoxyalkyl, an alkoxyalkoxyalkyl, an alkoxyalkoxyalkoxyalkyl, a 6-18C aryl, an alkylthio or an aralkyl; X is H or cyano; Ar is a group of formula II or a group of formula III; R'' and R''' are each the same as R or R'; n' is 1-22; and n is 1-2,000). This copolymer or a mixture thereof with a general-purpose polymeric material is used as a luminescent material of an EL element.



I



II

III